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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/023,330 | 12/20/2001 | Isabelle Rollat | 05725.0922-00 | 5705 |
| 22852 | 7590 | 12/04/2006 | EXAMINER | |
| FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413 | | | YU, GINA C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1617 | |

DATE MAILED: 12/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/023,330 | Applicant(s) ROLLAT ET AL. | |
| | Examiner Gina C. Yu | Art Unit 1617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/27/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/27/2006</u> | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 167,168,171,172,174,175,177,178,180,181,185-191,193-203,205-208,210-216,218-228,230-240,242-245,247-253,255-258,260-266,268-278,280,290,292-302,304-307 and 309-311.

Continuation of Disposition of Claims: Claims rejected are 167,168,171,172,174,175,177,178,180,181,185-191,193-203,205-208,210-216,218-228,230-240,242-245,247-253,255-258,260-266,268-278,280,290,292-302,304-307 and 309-311.

DETAILED ACTION

Receipt is acknowledged of response filed on February 27, 2006. Claims 167, 168, 171, 172, 174, 175, 177, 178, 180, 181, 185-191, 193-203, 205-208, 210-216, 218-228, 230-240, 242-245, 247-253, 255-258, 260-266, 268-278, 280, 290, 292-302, 304-307, and 309-311 are pending. Claim rejection made under 35 U.S.C. § 112, second paragraph, as indicated in the previous Office action dated August 26, 2005, is withdrawn in view of applicants' remarks. Claim rejection made under 35 U.S.C. § 103 (a) as indicated in the same Office action is maintained for the reasons of record.

Information Disclosure Statement

The information disclosure statement filed on February 27, 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 167, 168, 171, 172, 174, 175, 177, 178, 180, 181, 185-191, 193-203, 205-208, 210-216, 218-228, 230-240, 242-245, 247-253, 255-258, 260-266, 268-278, 280, 290, 292-302, 304-307, and 309-311 are rejected under 35 U.S.C. 103(a) as

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being unpatentable over Torgerson et al. (US 5019377) in view of Yang et al. (US 6013722).

Torgerson teaches using low glass transition temperature (0-80 °C) adhesive polymers as hair holding polymers to make shampoos and conditioners. See abstract. The reference teaches that shampoos typically comprise 1-25 % of the adhesive polymer and 5-60 % of a synthetic surfactant. See col. 11, lines 28 - 48. See claims 167, 168, 171, 172, 174, 175, 177, 178, 180, and 181. The reference also teaches that adding cationic surfactants such as quaternary ammonium salts at a level ranging from 0.01-10 % is convention and well known to one skilled in the art. See col. 11, line 49 - col. 12, line 3. See instant claims, claims 168, 172, 175, 177, and 181. Other conventional additives of instant claim 195 are also taught therein. The hair holding polymers are said to comprise one or more monomer components having homopolymers with relatively low glass transition temperatures, with at least one monomer component being selected from acrylate ester or methacrylate esters. See col. 3, lines 17 -56. The preferred (meth)acrylate esters include butylacrylate, n-butylmethacrylate, 2-ethylhexylacrylate, or the mixture thereof. See col. 4, lines 31 -42.

The reference teaches in col. 4, lines 17-31:

In addition, if relatively hydrophobic copolymer is desired (e.g., for use in shampoos and conditioners), relatively hydrophobic monomers are utilized. Thus, simple manipulation of the weight ratios of the monomers during synthesis of the copolymers and appropriate selection of the relative hydrophilicity/hydrophobicity of the monomers utilized followed by analysis of the resulting copolymers' single glass transition temperatures, permits easy synthesis of copolymers useful in the present invention having the desired combination of single glass transition temperature and solubility.

The reference also teaches that the hair holding polymers have various applications including topical compositions, beauty mask, and adhesives. See col. 6, lines 60 -68. As for claims 168, 172, 175, 178, and 181, the reference teaches that conditioners preferably comprise a lipid vehicle material such as cetyl alcohol and stearyl alcohol (conditioning components) and a cationic surfactant. The reference also teaches that the hair holding polymers have various applications including topical compositions, beauty mask, and adhesives. See col. 6, lines 60 -68. As for claims 168, 172, 175, 178, and 181, the reference teaches that conditioners preferably comprise a lipid vehicle material such as cetyl alcohol and stearyl alcohol (conditioning components) and a cationic surfactant.

The reference lacks a specific exemplification of the preferred copolymer, crosslinkers, and pH.

Yang et al. teach a pressure sensitive adhesive emulsion (cosmetically acceptable medium) comprising 50-90% n-butyl acrylate, 10-50% 2-hydroxy ethyl methacrylate, and 2-ethyl hexyl acrylate, and optionally a cross-linking agent. Divinylbenzene multifunctional aziridine amides are taught as the cross-linking agents. The adhesive has a pH between 1 and 7. The adhesives are taught as water-resistance and as imparting low haze to products comprising the adhesives. See abstract; col. 2, lines 20-33; col. 3, line 25- col. 5, line 55; col. 13, line 60-col. 16, line 16.

As for claims 177, 178, 180, and 181, claimed copolymer comprises at least one 30-40 % of n-butyl acrylate. While the Yang reference teaches 50-90 % concentration of the monomer, varying the weight ratio of the monomer would have been within the

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skill of the art. Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." See In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). It is viewed obvious to have found optimal or workable weight ratio of the monomers taught in Yang, particularly in view of Tongerson, because Tongerson teaches that it requires a "simple manipulation" to vary the weight ratio of the monomers during the synthesis of the copolymer to select appropriate solubility of the polymer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the hair styling composition of Torgerson by substituting the adhesive polymer with the adhesive copolymer comprising n-butyl acrylate/2-hydroxy ethyl (meth)acrylate/2-ethyl hexyl acrylate monomers as motivated by Yang because 1) Torgerson teaches using relatively hydrophobic acrylate copolymers to make shampoo and conditioners, wherein n-butyl acrylate and 2-ethyl hexyl acrylate are preferred; 2) Yang teaches that its adhesive copolymer imparts low haze thus clarity to the final products. The skilled artisan would have had a reasonable expectation of successfully producing clear shampoos and conditioners with hair styling properties.

The recitation "reshapable" denotes a physical property of the claimed composition. Whether a composition imparts reshapable styling effect on hair depends

on the active components that make up the composition. It would have been obvious to the skilled artisan that, the composition of the combined references, which comprise the surfactants of Engel and the adhesive polymer of Yang, provides a reshapable effect on the hair as claimed by applicants.

Response to Arguments

Applicant's arguments with respect to claims 167, 168, 171, 172, 174, 175, 177, 178, 180, 181, 185-191, 193-203, 205-208, 210-216, 218-228, 230-240, 242-245, 247-253, 255-258, 260-266, 268-278, 280, 290, 292-302, 304-307, and 309-311 have been considered but are unpersuasive.

Applicants argue that no motivation or suggestion to combine Torgerson and Yang. Applicants assert that selecting the appropriate solubility of the polymer is not sufficient for a motivation to vary the weight ratio between the monomers because "appropriate solubility" is not defined. The argument is unpersuasive, as a skilled artisan in hair styling polymer art would have known how to formulate a stable and effective composition with the polymers.

Furthermore, the reference provides guidelines as to how to select the monomers: the selection is based on the glass transition temperature of a homopolymers of the monomer and hydrophobicity/hydrophilicity of the monomer. See col. 3, line 53 – col. 4, line 16.

Applicants state, "Torgerson et al. discloses that at least one of the monomers is selected from acrylate amides or methacrylate amides to provide a single glass transition temperature ranging from about 0 to 80 °C". Examiner views that the

statement incorrectly describes the actual teaching of the reference, because it is the copolymer and not the individual monomer that requires to have the single glass transition temperature at issue. Acrylate amides or methacrylate amides are not the only monomers to make up the copolymer. See col. 3, lines 20 – 56.

On the glass transition temperature of the copolymer, the reference does not say that the monomers should be within the 0-80 °C range; monomers may have glass transition temperatures for their homopolymers above and below the desired single glass transition temperature range for the copolymers of the present invention.

It is respectfully noted that applicants' monomers n-butyl acrylate and 2-ethyl hexyl acrylate monomers are already taught in Torgerson, as suitable monomers to make an adhesive copolymers which are used for the same purposes as applicants' invention. Yang teaches an adhesive copolymer comprising n-butyl acrylate and 2-ethyl hexyl acrylate or 2-hydroxy ethyl (meth)acrylate, thus indicates the functional equivalency of the applicants' monomers (b) and (c). Thus applicants' argument that the skilled artisan would have been restricted from altering the monomers of Torgerson due to the glass transition temperature requirement is unpersuasive, since Yang teaches the similarity between n-butyl acrylate/2-ethyl hexyl acrylate copolymer and n-butyl acrylate/2-hydroxy ethyl (meth)acrylate copolymers. Since Yang teaches that 2-ethyl hexyl acrylate and 2-hydroxy ethyl (metha)acrylate are used for the same purposes, combining these monomers to make a copolymer for the known properties of would have been well within the skill in the art.

Applicants' argument that the "simple manipulation" refers to the copolymers of Torgerson only is not persuasive. One of ordinary skill in polymer art would well understand that a technique described as a "simple manipulation" in the reference would literally require a simple manipulation that he can apply in making other similar polymers.

Applicants assert that no reasonable expectation of success exists in the combination of Torgerson and Yang. Applicants' reasoning that the Yang polymer is used for "tapes, labels, decals transfer tapes and other articles" and Torgerson requires a low glass transition temperature adhesive having at least one monomer selected from acrylate amides or methacrylate amides. It is respectfully noted that applicants' monomers are already taught by Torgerson. Yang was cited merely to show that the specific selection out of the Torgerson monomers would have been obvious because it is said to render a clear composition. Torgerson teaches that the hair styling composition uses an adhesive comprising, thus the use of the Yang adhesive to make a hair styling composition also is an obvious matter to a skilled artisan.

In response to applicants' arguments that Torgerson and Yang "teach away" from each other, examiner asserts that the argument lacks support as there is no indication in either of the references not to combine, or that combining the teachings would be somehow against accepted wisdom. See MPEP §2145. D.

Conclusion

No claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 571-272-8605. The examiner can normally be reached on Monday through Friday, from 7:00AM until 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gina Yu
Patent Examiner



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